RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/518,297C
Source: 1FW16
Date Processed by STIC: 5/18/05

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 05/18/2005
PATENT APPLICATION: **US/09/518,297C** TIME: 10:47:13

Input Set : **A:\54600-8130.US00-SEQLIST-corr.TXT**
Output Set: **N:\CRF4\05182005\I518297C.raw**

```
 4 <110> APPLICANT: Lim, Moon Young
 5       Edwards, Cynthia A.
 6       Fry, Kirk E.
 7       Bruice, Thomas W.
 8       Starr, Douglas B.
 9       Laurance, Megan E.
10       Kwok, Yan
13 <120> TITLE OF INVENTION: DNA Binding Compound-Mediated Molecular
14       Switch System
16 <130> FILE REFERENCE: 4600-0130.30
18 <140> CURRENT APPLICATION NUMBER: US 09/518,297C
19 <141> CURRENT FILING DATE: 2000-03-03
21 <150> PRIOR APPLICATION NUMBER: US 60/122,513
22 <151> PRIOR FILING DATE: 1999-03-03
24 <150> PRIOR APPLICATION NUMBER: US 60/154,605
25 <151> PRIOR FILING DATE: 1999-09-17
27 <160> NUMBER OF SEQ ID NOS: 77
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 11
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial Sequence
36 <220> FEATURE:
37 <223> OTHER INFORMATION: DNA response element
39 <400> SEQUENCE: 1
40 cgttcgcact t                                                    11
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 17
44 <212> TYPE: DNA
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: DNA response element
50 <400> SEQUENCE: 2
51 cggagtactg tcctccg                                              17
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 12
55 <212> TYPE: DNA
56 <213> ORGANISM: Artificial Sequence
58 <220> FEATURE:
59 <223> OTHER INFORMATION: DNA response element
W--> 61 <221> NAME/KEY: misc_feature
62 <222> LOCATION: (1)...(12)
63 <223> OTHER INFORMATION: n = A,T,C or G
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W--> 65 <400> 3
W--> 66 taattanggg ng **12**
68 <210> SEQ ID NO: 4
69 <211> LENGTH: 551
70 <212> TYPE: PRT
71 <213> ORGANISM: Homo sapiens
73 <220> FEATURE:
74 <221> NAME/KEY: VARIANT
75 <222> LOCATION: (0)...(0)
76 <223> OTHER INFORMATION: transcriptional regulatory protein
78 <400> SEQUENCE: 4

```
79 Met Asp Glu Leu Phe Pro Leu Ile Phe Pro Ala Glu Pro Ala Gln Ala
80  1               5                  10                  15
81 Ser Gly Pro Tyr Val Glu Ile Ile Glu Gln Pro Lys Gln Arg Gly Met
82             20                  25                  30
83 Arg Phe Arg Tyr Lys Cys Glu Gly Arg Ser Ala Gly Ser Ile Pro Gly
84         35                  40                  45
85 Glu Arg Ser Thr Asp Thr Thr Lys Thr His Pro Thr Ile Lys Ile Asn
86     50                  55                  60
87 Gly Tyr Thr Gly Pro Gly Thr Val Arg Ile Ser Leu Val Thr Lys Asp
88 65                  70                  75                  80
89 Pro Pro His Arg Pro His Pro His Glu Leu Val Gly Lys Asp Cys Arg
90                 85                  90                  95
91 Asp Gly Phe Tyr Glu Ala Glu Leu Cys Pro Asp Arg Cys Ile His Ser
92             100                 105                 110
93 Phe Gln Asn Leu Gly Ile Gln Cys Val Lys Lys Arg Asp Leu Glu Gln
94         115                 120                 125
95 Ala Ile Ser Gln Arg Ile Gln Thr Asn Asn Asn Pro Phe Gln Val Pro
96     130                 135                 140
97 Ile Glu Glu Gln Arg Gly Asp Tyr Asp Leu Asn Ala Val Arg Leu Cys
98 145                 150                 155                 160
99 Phe Gln Val Thr Val Arg Asp Pro Ser Gly Arg Pro Leu Arg Leu Pro
100                165                 170                 175
101 Pro Val Leu Pro His Pro Ile Phe Asp Asn Arg Ala Pro Asn Thr Ala
102            180                 185                 190
103 Glu Leu Lys Ile Cys Arg Val Asn Arg Asn Ser Gly Ser Cys Leu Gly
104        195                 200                 205
105 Gly Asp Glu Ile Phe Leu Leu Cys Asp Lys Val Gln Lys Glu Asp Ile
106    210                 215                 220
107 Glu Val Tyr Phe Thr Gly Pro Gly Trp Glu Ala Arg Gly Ser Phe Ser
108 225                 230                 235                 240
109 Gln Ala Asp Val His Arg Gln Val Ala Ile Val Phe Arg Thr Pro Pro
110                245                 250                 255
111 Tyr Ala Asp Pro Ser Leu Gln Ala Pro Val Arg Val Ser Met Gln Leu
112            260                 265                 270
113 Arg Arg Pro Ser Asp Arg Glu Leu Ser Glu Pro Met Glu Phe Gln Tyr
114        275                 280                 285
115 Leu Pro Asp Thr Asp Asp Arg His Arg Ile Glu Glu Lys Arg Lys Arg
116    290                 295                 300
```

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```
117 Thr Tyr Glu Thr Phe Lys Ser Ile Met Lys Lys Ser Pro Phe Ser Gly
118 305                 310                 315                 320
119 Pro Thr Asp Pro Arg Pro Pro Pro Arg Arg Ile Ala Val Pro Ser Arg
120                 325                 330                 335
121 Ser Ser Ala Ser Val Pro Lys Pro Ala Pro Gln Pro Tyr Pro Phe Thr
122             340                 345                 350
123 Ser Ser Leu Ser Thr Ile Asn Tyr Asp Glu Phe Pro Thr Met Val Phe
124         355                 360                 365
125 Pro Ser Gly Gln Ile Ser Gln Ala Ser Ala Leu Ala Pro Ala Pro Pro
126     370                 375                 380
127 Gln Val Leu Pro Gln Ala Pro Ala Pro Ala Pro Ala Pro Ala Met Val
128 385                 390                 395                 400
129 Ser Ala Leu Ala Gln Ala Pro Ala Pro Val Pro Val Leu Ala Pro Gly
130                 405                 410                 415
131 Pro Pro Gln Ala Val Ala Pro Pro Ala Pro Lys Pro Thr Gln Ala Gly
132             420                 425                 430
133 Glu Gly Thr Leu Ser Glu Ala Leu Leu Gln Leu Gln Phe Asp Asp Glu
134         435                 440                 445
135 Asp Leu Gly Ala Leu Leu Gly Asn Ser Thr Asp Pro Ala Val Phe Thr
136     450                 455                 460
137 Asp Leu Ala Ser Val Asp Asn Ser Glu Phe Gln Gln Leu Leu Asn Gln
138 465                 470                 475                 480
139 Gly Ile Pro Val Ala Pro His Thr Thr Glu Pro Met Leu Met Glu Tyr
140                 485                 490                 495
141 Pro Glu Ala Ile Thr Arg Leu Val Thr Gly Ala Gln Arg Pro Pro Asp
142             500                 505                 510
143 Pro Ala Pro Ala Pro Leu Gly Ala Pro Gly Leu Pro Asn Gly Leu Leu
144         515                 520                 525
145 Ser Gly Asp Glu Asp Phe Ser Ser Ile Ala Asp Met Asp Phe Ser Ala
146     530                 535                 540
147 Leu Leu Ser Gln Ile Ser Ser
148 545                 550
150 <210> SEQ ID NO: 5
151 <211> LENGTH: 19
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: DNA response element
158 <400> SEQUENCE: 5
159 tccctatcag tgatagaga                                              19
161 <210> SEQ ID NO: 6
162 <211> LENGTH: 22
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: response element
169 <400> SEQUENCE: 6
170 cttaacactc gcgagtgtta ag                                          22
172 <210> SEQ ID NO: 7
```

RAW SEQUENCE LISTING DATE: 05/18/2005
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Input Set : **A:\54600-8130.US00-SEQLIST-corr.TXT**
Output Set: **N:\CRF4\05182005\I518297C.raw**

```
     173 <211> LENGTH: 13
     174 <212> TYPE: DNA
     175 <213> ORGANISM: Artificial Sequence
     177 <220> FEATURE:
     178 <223> OTHER INFORMATION: response element
W--> 180 <221> NAME/KEY: misc_feature
     181 <222> LOCATION: (3)...(3)
     182 <223> OTHER INFORMATION: n = G or T
W--> 184 <221> misc_feature
     185 <222> LOCATION: (7)...(7)
     186 <223> OTHER INFORMATION: n = A,T,C or G
W--> 188 <221> misc_feature
     189 <222> LOCATION: (12)...(12)
     190 <223> OTHER INFORMATION: n = A or C
W--> 192 <400> 7
W--> 193 rgntcantga cny                                                    13
     195 <210> SEQ ID NO: 8
     196 <211> LENGTH: 77
     197 <212> TYPE: PRT
     198 <213> ORGANISM: Artificial Sequence
     200 <220> FEATURE:
     201 <223> OTHER INFORMATION: activator sequence
     203 <400> SEQUENCE: 8
     204 Ala Pro Pro Thr Asp Val Ser Leu Gly Asp Glu Leu His Leu Asp Gly
     205  1               5                  10                  15
     206 Glu Asp Val Ala Met Ala His Ala Asp Ala Leu Asp Asp Phe Asp Leu
     207             20                  25                  30
     208 Asp Met Leu Gly Asp Gly Asp Ser Pro Gly Pro Gly Phe Thr Pro His
     209         35                  40                  45
     210 Asp Ser Ala Pro Tyr Gly Ala Leu Asp Met Ala Asp Phe Glu Phe Glu
     211     50                  55                  60
     212 Gln Met Phe Thr Asp Ala Leu Gly Ile Asp Glu Tyr Gly
     213 65                  70                  75
     215 <210> SEQ ID NO: 9
     216 <211> LENGTH: 11
     217 <212> TYPE: PRT
     218 <213> ORGANISM: Artificial Sequence
     220 <220> FEATURE:
     221 <223> OTHER INFORMATION: activator sequence
W--> 223 <221> NAME/KEY: VARIANT
     224 <222> LOCATION: (1)...(11)
     225 <223> OTHER INFORMATION: tetramer
W--> 227 <400> 9
     228 Asp Ala Leu Asp Asp Phe Asp Leu Asp Met Leu
     229  1               5                  10
     231 <210> SEQ ID NO: 10
     232 <211> LENGTH: 97
     233 <212> TYPE: PRT
     234 <213> ORGANISM: Artificial Sequence
```

RAW SEQUENCE LISTING DATE: 05/18/2005
PATENT APPLICATION: **US/09/518,297C** TIME: 10:47:13

Input Set : **A:\54600-8130.US00-SEQLIST-corr.TXT**
Output Set: **N:\CRF4\05182005\I518297C.raw**

```
236 <220> FEATURE:
237 <223> OTHER INFORMATION: repressor sequence
239 <400> SEQUENCE: 10
240 Met Asp Ala Lys Ser Leu Thr Ala Trp Ser Arg Thr Leu Val Thr Phe
241  1               5                  10                  15
242 Lys Asp Val Phe Val Asp Phe Thr Arg Glu Glu Trp Lys Leu Leu Asp
243             20                  25                  30
244 Thr Ala Gln Gln Ile Val Tyr Arg Asn Val Met Leu Glu Asn Tyr Lys
245         35                  40                  45
246 Asn Leu Val Ser Leu Gly Tyr Gln Leu Thr Lys Pro Asp Val Ile Leu
247     50                  55                  60
248 Arg Leu Glu Lys Gly Glu Glu Pro Trp Leu Val Glu Arg Glu Ile His
249 65                  70                  75                  80
250 Gln Glu Thr His Pro Asp Ser Glu Thr Ala Phe Glu Ile Lys Ser Ser
251                 85                  90                  95
252 Val
255 <210> SEQ ID NO: 11
256 <211> LENGTH: 36
257 <212> TYPE: PRT
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: repressor sequence
263 <400> SEQUENCE: 11
264 Met Ala Ala Ala Val Arg Met Asn Ile Gln Met Leu Leu Glu Ala Ala
265  1               5                  10                  15
266 Asp Tyr Leu Glu Arg Arg Glu Arg Glu Ala Glu His Gly Tyr Ala Ser
267             20                  25                  30
268 Met Leu Pro Tyr
269         35
271 <210> SEQ ID NO: 12
272 <211> LENGTH: 116
273 <212> TYPE: DNA
274 <213> ORGANISM: Escherichia coli
276 <220> FEATURE:
277 <221> NAME/KEY: misc_feature
278 <222> LOCATION: (0)...(0)
279 <223> OTHER INFORMATION: partial promoter sequence
281 <400> SEQUENCE: 12
282 cgcggtcaga aaattatttt aaatttcctc ttgtcaggcc ggaataactc cctataatgc      60
283 gccaccactg acacggaaca acggcaaaca cgccgccggg tcagcggggt tctcct         116
285 <210> SEQ ID NO: 13
286 <211> LENGTH: 22
287 <212> TYPE: DNA
288 <213> ORGANISM: Escherichia coli
290 <220> FEATURE:
291 <221> NAME/KEY: misc_feature
292 <222> LOCATION: (0)...(0)
293 <223> OTHER INFORMATION: partial promoter sequence
295 <400> SEQUENCE: 13
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/18/2005
PATENT APPLICATION: **US/09/518,297C** TIME: 10:47:14

Input Set : **A:\54600-8130.US00-SEQLIST-corr.TXT**
Output Set: **N:\CRF4\05182005\I518297C.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 7,11
Seq#:7; N Pos. 3,7,12

VERIFICATION SUMMARY DATE: 05/18/2005
PATENT APPLICATION: **US/09/518,297C** TIME: 10:47:14

Input Set : **A:\54600-8130.US00-SEQLIST-corr.TXT**
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L:61 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
L:66 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:180 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:184 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:188 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:192 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:223 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:227 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9